

**Better treatments. Better outcomes.**

Gerold Bepler, M.D., Ph.D.  
President & CEO

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**Better treatments. Better outcomes.**

The Karmanos Cancer Institute is a unique, urban-based integrated center of research, patient care and education, dedicated to the prevention, early detection, treatment and eventual eradication of cancer.

Based in Midtown Detroit, we are one of only 41 National Cancer Institute designated Comprehensive Cancer Centers in the United States.

Caring for more than 6,000 new patients annually and conducting more than 700 cancer-specific scientific investigations and clinical trials, the Karmanos Cancer Center is among the nation's best cancer centers. Karmanos offers access to more than 100 cancer treatments that no other local hospital has.

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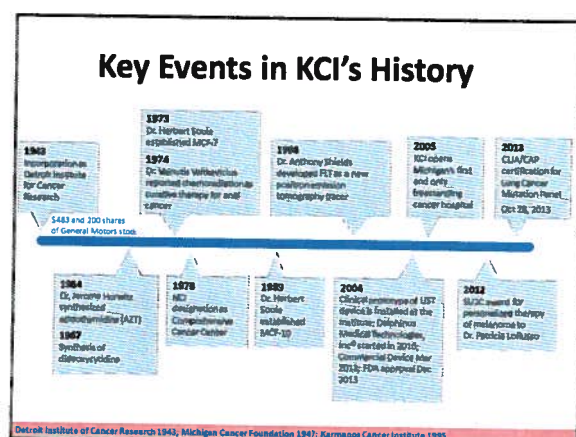
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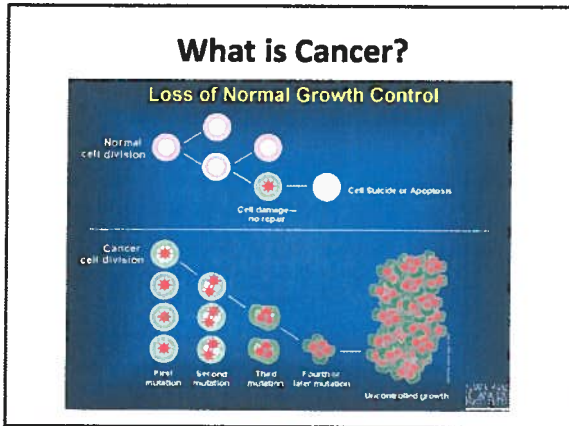
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### Cancer Facts and Figures

- One out of every two men will be diagnosed with cancer.
- One out of every three women will be diagnosed with cancer.
- About 1,660,290 new cancer cases are expected to be diagnosed in 2013.
- About 580,350 Americans are expected to die of cancer in 2013.
- Approximately 13,700,000 Americans with a history of cancer were alive on January 1, 2012.

In Michigan: 57,560 new cases, 20,570 deaths per year      Source: American Cancer Society

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### Economic Impact of Cancer in the United States

**Total cost: \$201.5 Billion**

- Direct Medical Costs (all health expenditures): \$77.4 Billion
- Indirect Mortality Costs (lost productivity): \$124 Billion

Source: National Cancer Institute

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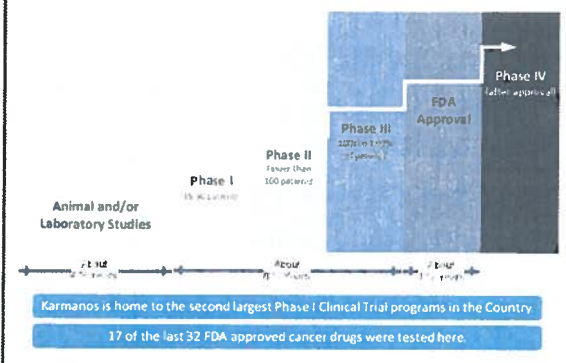
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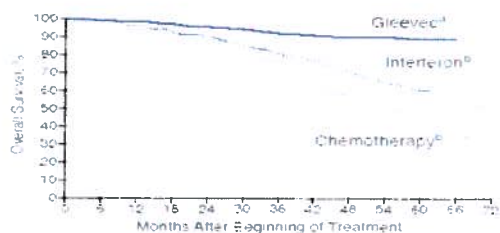
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## Clinical Trials Process

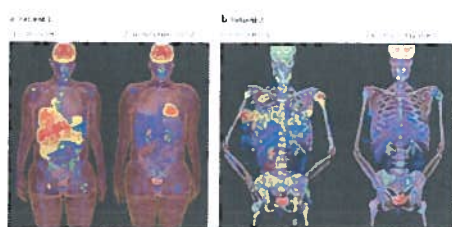


## Molecularly Directed Therapy Dramatically Improves Outcomes



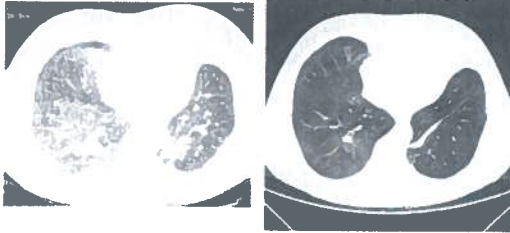
<sup>a</sup> From Druker B, Guilford P, O'Brien S, et al. *N Engl J Med* 2006;355:2408-2417.  
<sup>b</sup> From The Italian Cooperative Study Group On Chronic Myeloid Leukemia. *N Engl J Med* 1994;330:820-825.

## PET Scans of 2 Patients Treated with Vemurafenib



Positron emission tomography (PET) scanning was used to visualize uptake of <sup>18</sup>F-deoxyglucose, as shown in two patients (panel a and panel b) from the Phase I extension cohort<sup>11</sup>. In both panels a and b, the left image is taken before initiating therapy and the right image is taken after 2 weeks of vemurafenib treatment. All evaluable patients from this cohort experienced reduction of PET signal within 2 weeks. Results from the PET scans showed remarkable blockade of tumour metabolism by vemurafenib. Images courtesy of G. McArthur and R. Hicks, Peter MacCallum Cancer Centre, Melbourne, Australia.

### CT Scans of a Patient Treated with Erlotinib



Selected patients with dramatic and fast responses to EGFR-TKIs:  
Women, Adenocarcinoma, Non(light)-smoker, Asian

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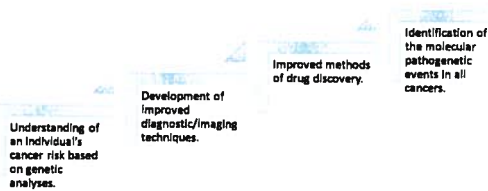
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### The Future of Cancer Care




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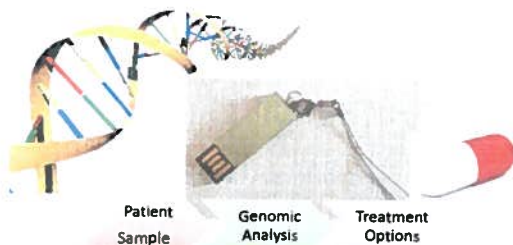
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### The Future of Cancer Care

Your genome on a flashdrive to enable selection of the most effective and least toxic therapy




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